

RADIOACTIVE MATERIAL LICENSE NO. UT 2300249**STATEMENT OF BASIS**

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Purpose

The purpose of this Statement of Basis is to describe proposed changes to Radioactive Material License No. UT 2300249 (hereafter License) for the EnergySolutions, LLC (hereafter Licensee) low-level radioactive waste disposal facility near Clive, Tooele County, Utah; located in Section 32, Township 1 South, Range 11 West, Salt Lake Base Meridian (SLBM).

The changes will be integrated into Amendment # 13 of the License.

License Change Summary

License Condition	Minor/Major Change	Description of Changes
10.E	Major	Language has been added to allow sealed sources and density gauges authorized and used for the purposes identified in License Condition 9.I and 9.J to be stored and used on all property owned by the Licensee at their Clive Facility. . The property is located in Sections 29, 32 and parts of Sections 28 and 33 in Township 1 South, Range 11 West and parts of Sections 4, 5, and 6 Township 2 South Range 11 West, Salt Lake Base Meridian (SLBM).
85.C	Minor	The language in the License Condition was removed and replaced by the word <i>Reserved</i> .
RML	Minor	Grammatical and formatting errors were corrected throughout the RML.

Explanation for Changes

License Condition 10.E: While preparing for a DRC Health Physics inspection a representative of the Division of Radiation Control (DRC) of the Utah Department of Environmental Quality observed that licensed material in the form of portable density/moisture gauges were stored on Section 29 contrary to the requirements in License Condition 10 of the License. License Condition 10.A states: “The Licensee may receive, store and dispose of licensed material at the Licensee’s facility located in Section 32 of Township 1 South and Range 11 West, Tooele County, Utah.” Further, License Condition 10.E states: “Licensed material in Items 6.C through 6.P shall be used only at the Licensee's facilities referenced in Condition 10.B.” License Condition 10.B identifies the survey coordinates for Section 32, Township 1 South and Range 11 West, Tooele County, Utah. The material contained in the portable gauges is authorized in License Conditions 6.C and 6.D.

In a letter dated December 16, 2010, DRC staff requested the licensee to store the portable

gauges on Section 32. In a letter dated January 4, 2011 (CD11-0005), the Licensee responded to the DRC's request and informed the DRC that the portable gauges had been moved to Section 32.

In two letters dated August 2, 2011 (CD11-0183), and August 17, 2011 (CD11-0224), the Licensee requested that the License be amended to allow the storage and use of specific sealed sources on Sections 29 and 32. The sealed sources include sources used as calibration and reference sources and sealed sources contained in a device to measure the properties of soils and materials. The amendment requested to add a new License Condition 9.M and modify License Condition 10.A. In another letter dated November 2, 2011 (CD11-0298), the Licensee requested that the request regarding Section 29 be separated from other requests included in the two August letters. In an e-mail dated November 22, 2011, the Licensee requested that the sealed sources be allowed to be used and stored on all of the property owned by the Licensee at their facility.

To put this request in context, similar sealed sources are used in a variety of industrial and construction applications throughout the state. Similar sources are stored at a variety of locations throughout the state. The DRC currently regulates about 50 *general licensees* and approximately 195 *specific licensees*. A general licensee is a person or organization that acquires, uses, or possesses a generally licensed device and has received the device from the device manufacturer or by change of company ownership where the device remains in use at a particular location. A generally licensed device contains radioactive material that is used to detect, measure, gauge, or control the thickness, density, level, or chemical composition of various items. Examples of such devices are density gauges, fill-level gauges, gas chromatographs, and static-elimination devices. The DRC issues a *general license registration certificate* to register and track generally licensed devices. The registration certificate is valid for a 5-year period and annual fees are charged to registrants each year until the termination of the registration certificate. A *specific license* may be issued after the DRC makes a determination that the applicant's facilities and equipment, personnel training and experience, and policies and procedures for radiation safety are sufficient to safely use radioactive materials. Specific-license facilities for sealed sources include medical (nuclear medicine), industrial (moisture-density gauges, well logging, industrial radiography, or flow meters), and academic (research).

To process the request involving Section 29 and the other property that the Licensee owns at their Clive facility, the DRC must determine if the Licensee is required to meet Utah Code 19-3-105 for the requested modifications.

The heading for Utah Code 19-3-105 is *Definitions -- Legislative and gubernatorial approval required for radioactive waste license -- Exceptions -- Application for new, renewed, or amended license*. "Radioactive Waste License" is defined in Utah Code 19-3-105(1)(d) as a radioactive materials license issued by the Executive Secretary under Subsection 19-3-108(2)(c)(i), to own, construct, modify, or operate a radioactive waste facility. Utah Code 19-3-105(c)(i) defines a "radioactive waste facility" as a facility that receives, transfers, stores, decays in storage, treats, or disposes of radioactive waste commercially for profit or generated at locations other than the radioactive waste facility.

After reviewing the definitions contained within Utah Code 19-3-105(1)(c)(i) and (1)(d), the Executive Secretary has determined that the requirements contained in Utah Code 19-3-105(3) do not apply to sealed sources used for calibration/reference sources or for testing properties of soil. Utah Code 19-3-105(3) states, in part, that subject to Subsection 10, a person may not own, construct, modify, or operate a radioactive waste facility without the approval of the governing body of the municipality or county responsible for local planning and zoning where the

radioactive waste is or will be located and the approval of the Governor and the Legislature. Utah Code 19-3-105(3) lists prohibitions restricting individuals from owning, constructing, modifying, or operating a radioactive waste facility. The definition for a radioactive waste facility does not include the use or storage of radioactive materials that are not radioactive waste. Therefore, the Executive Secretary has determined that the requirements in Utah Code 19-3-105 apply to radioactive waste and not to sealed sources used for calibration/reference sources or to measure the properties of soils or materials. Since the requirements in Utah Code 19-3-105 do not apply in this instance, the Executive Secretary is approving the amendment request to allow the use and storage of the specified sealed sources on Section 29 and other property owned by the Licensee as part of their Clive facility.

License Condition 85.C: This requirement was superseded when Utah Administrative Code R313-19-34(9) was adopted. Therefore, this license condition became redundant with the requirement in rule. The DRC is removing this language and replaced by the word *Reserved*.

RML UT 2300249: The DRC recently updated the Microsoft Word program and the RML document was converted over to the newest version. While correcting some formatting from the conversion grammatical errors were identified throughout the RML and corrected.